Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-26 (Cancelled)

27 (currently amended) A method for detecting translation of a polynucleotide comprising the steps of:

a) providing a substrate ~~comprising an adsorbent~~ for use in desorption spectrometry, wherein the substrate comprises a surface and an adsorbent attached to the surface;

b) ~~contacting the substrate with the~~ providing a polynucleotide encoding a polypeptide and ~~with~~ reagents for in vitro translation of the polynucleotide;

c) translating the polynucleotide *in situ* on the adsorbent, whereby the polypeptide is produced and is docked through the adsorbent to the substrate;

[[c]] d) exposing the substrate to an eluant to wash off unbound material and to allow retention of the polypeptide by the adsorbent; and

[[d]] e) detecting retained polypeptide by desorption spectrometry;

whereby detection of the polypeptide provides detection of translation of the polynucleotide.

28-35 (Cancelled)

36 (New): The method of claim 27 wherein the adsorbent specifically binds the polypeptide.

37 (New): The method of claim 36 wherein the adsorbent comprises an antibody.

38 (New): The method of claim 27 wherein the adsorbent is a hydrophilic interaction adsorbent, a hydrophobic interaction adsorbent, a metal chelate adsorbent, an anionic adsorbent or a cationic adsorbent.

39 (New): The method of claim 27 wherein the polynucleotide comprises an mRNA.

40 (New): The method of claim 39 wherein step (b) further comprises providing reagents for in vitro transcription of the mRNA.

41 (New): The method of claim 27 wherein the polynucleotide is comprised in a genetic package.

42 (New): The method of claim 27 wherein the genetic package is a bacteriophage.

43 (New): The method of claim 27 wherein step (c) comprises creating a well over the substrate with the adsorbent at a bottom of the well and placing the reagents and the polynucleotide in the well.

44 (New): The method of any of claims 27 and 36-43 wherein the substrate is a mass spectrometry probe and desorption spectrometry comprises laser desorption mass spectrometry.